

REMARKS

This is a response to the Office Action mailed August 1, 2006. Claims 35-40 have been added herein. Claims 20 and 22 have been amended. With this Amendment, Claims 1-4, 6, 16, and 18-40 are pending. No new subject matter has been added to the application. The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

Allowable Subject Matter

Applicants acknowledge with appreciation that claims 33 and 34 are allowable and the subject matter of dependent claims 4, 6, 23, 24, 29, and 31 would be allowable if rewritten into independent form. Applicants respectfully submit that claims 4, 6, 23, 24, 29, and 31 are in condition for allowance because these claims depend from allowable base claims for at least the reasons set forth below.

Rejections of Claims 1-3, 16, 18-22, 25-28, 30 and 32 under 35 U.S.C. § 102(b) by Choma

Claims 1-3, 16, 18-22, 25-28, 30 and 32 stand rejected under 35 U.S.C. §102(b) as anticipated by U.S. Patent No. 5,390,808 issued to Choma et al. ("Choma"). Applicants respectfully traverse these rejections.

Choma discloses an inlet tube 12 having a leading end 14, which includes a frustoconical shaped first diameter portion 16 and a reduced second diameter portion 18. A step 20 is located between the first and second diameter portions 16, 18. A third transitional diameter portion 22 extends between the reduced second diameter portion 18 and an enlarged fourth diameter portion 24. The third transitional diameter portion 22 has an increasing diameter in the direction of the enlarged fourth diameter portion 24.

To install the Choma tube 12, a crimping tool 96 is provided with moveable bearings 124, 126. Col. 5, lines 42-45; col. 6, lines 1-5. The bearings 124, 126 are moved radially outward to expand the enlarged fourth diameter portion 24 to form the radially outwardly expanded portion 144. Col. 5, lines 17-21 and 45-48. As shown in Figure 5 of Choma, the step 20 between the first and second diameter portions 16, 18 defines an inner

diameter that is not larger than an inner diameter of the enlarged fourth diameter portion 24 (including the expanded portion 144).

Claims 1-3 and 28

Claim 1 recites:

A system comprising:

- a structural work piece having an opening;
- a tubular fitting received in the opening of the structural work piece, the fitting comprising:

- a ring portion having an outer circumference and an inner circumference, the outer circumference being closely receivable by the opening in the structural work piece when the ring portion is inserted into the opening;

- at least a first coupling member having at least a minimum inner circumference, an outer envelope, and an end section, the coupling member extending axially from the ring portion, the minimum inner circumference being larger than the inner circumference of the ring portion, the outer envelope sized to be moved through the opening in the work piece, and the end section configured to be engageable with another device; and

- wherein the ring portion is expanded so as to establish a secure interference fit between the outer circumference of the ring portion and the opening in the work piece.

Applicants believe that Choma does not teach or suggest, *inter alia*, that the first coupling member has the minimum inner circumference larger than the inner circumference of the ring portion. Choma discloses the fitting 12 having the leading end 14 with the step 20. In contrast to claim 1, the step 20 has an inner diameter that is not larger than the inner diameter of the fourth diameter portion 24.

The Office Action cited the first diameter portion 16 as having a “minimum circumference 20 . . . being larger than the inner circumference of the ring portion [*sic*: enlarged fourth diameter portion] 24.” Office Action, page 2. Applicants respectfully disagree. Figure 5 of Choma shows that the cited step 20 has an inner diameter that is not larger than the inner diameter of the fourth diameter portion 24. Choma simply does not disclose, teach, or suggest the first coupling member having the minimum inner circumference that is larger than the inner circumference of the ring portion.

Consequently, claim 1 is novel over Choma. Because claims 2, 3 and 28 depend from an allowable base claim, and also because they include additional limitations, these claims are likewise allowable.

Claims 16 and 18

Claim 16 recites, *inter alia*, that the coupling member has the minimum inner circumference being larger than the inner circumference of the ring portion. In contrast to claim 16, Choma discloses that the inner surface of the cited step 20 defines an inner diameter that is not larger than an inner diameter of the fourth diameter portion 24. See Figure 5 of Choma. Applicants believe that Choma does not disclose, teach, or suggest the coupling member having the minimum inner circumference that is larger than the inner circumference of the ring portion.

Consequently, claim 16 is novel over Choma. Because claim 18 depends from allowable base claim 16, and also because it includes additional limitations, claim 18 is likewise allowable.

Claims 19 and 25-27

Claim 19 recites, *inter alia*, that the coupling section has at least a minimum inner circumference that is larger than the inner circumference of the ring portion. In contrast to claim 19, Choma discloses that the inner surface of the cited step 20 defines an inner diameter that is not larger than an inner diameter of the fourth diameter portion 24. See Figure 5 of Choma. Applicants believe that Choma does not disclose, teach, or suggest the coupling member having the minimum inner circumference that is larger than the inner circumference of the ring portion.

Consequently, claim 19 is novel over Choma. Because claims 25-27 depend from allowable base claim 19, and also because they include additional limitations, claims 25-27 are likewise allowable.

Claims 20, 21, 30, and 32

Amended claim 20 recites, *inter alia*, expanding the ring portion of the fitting in an outwardly radial direction by physically contacting the increased circumference section of the mandrel with the ring portion as the mandrel is forced through the inner circumference of the ring portion. In contrast to claim 20, Choma discloses the crimping tool 96 having outwardly movable bearings 124, 126, not a mandrel, that expand the portion 24.

The Office Action cites the crimping tool 96 of Choma as a “mandrel.” Applicants respectfully disagree with this assertion because one of ordinary skill in the art would not consider the crimping tool 96 having movable bearings as a mandrel. Unlike mandrels, the bearings 124, 126 of the tool 96 are used to form a complicated crimp pattern shown in Figure 6 of Choma. Choma simply does not disclose, teach, or suggest expansion with a mandrel, let alone having the fitting portion that is radially expandable by physically contacting the increased circumference of the mandrel.

Consequently, claim 20 is novel over Choma. Dependant claims 21, 30, and 32 are patentably distinguished over Choma for at least the reasons with respect to the base claim 20 as well as for novel and nonobvious combinations of features recited therein.

Claim 22

Amended Claim 22 recites, in part, expanding the ring portion of the fitting in an outwardly radial direction by physically contacting the increased perimeter section of the mandrel with the ring portion as the mandrel is forced through the inner circumference perimeter of the ring portion. In contrast to claim 22, Choma discloses the crimping tool 96 having outwardly movable bearings 124, 126, not a mandrel, that expand the enlarged fourth portion 24. As discussed above, the Office Action cites the crimping tool 96 of Choma as a “mandrel.” Applicants respectfully disagree with this assertion because one of ordinary skill in the art would not consider the crimping tool 96 having movable bearings as a mandrel. Choma simply does not disclose, teach, or suggest expansion with a mandrel, let alone having the fitting portion that is radially expandable by physically contacting the increased perimeter section of the mandrel.

Consequently, claim 22 is novel over Choma.

New Claims

Claims 35-40 have been added. These claims are fully supported by the application as filed. Accordingly, no new matter has been added by this amendment. Consideration of new claims 35-40 is respectfully requested.


Conclusion

Overall, the cited reference does not teach or suggest the claimed features of the embodiments recited in the pending independent claims, and thus such claims are allowable. The pending dependent claims are patentably distinguished over the cited reference for at least the reasons with respect to their respective base claims as well as for novel and nonobvious combinations of features recited therein. Furthermore, any remarks in support of patentability of one claim should not be imputed to any other claim, even if similar terminology is used. Any remarks referring to only a portion of a claim should not be understood to base patentability on that portion; rather, patentability must rest on each claim taken as a whole.

Applicants respectfully traverse each of the Examiner's rejections and each of the Examiner's assertions regarding what the cited reference shows or teaches, even if not expressly discussed herein. Although changes to some of the claims have been made, no acquiescence or estoppel is or should be implied thereby; such amendments are made only to expedite prosecution of the present application and are without prejudice to the presentation or assertion, in the future, of claims relating to the same or similar subject matter.

In light of the above amendments and remarks, Applicants respectfully submit that all pending claims are allowable. Examiner Bochna is encouraged to contact Mr. Klassen by telephone to discuss the above and any other distinctions between the claims and the applied references, if desired.

Respectfully submitted,
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